

Atty. Dkt. No. 070191-0190 (15 XT 51)

RECEIVED

JUL 21 2004
TECH CENTER 2800

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Lounsberry et al.

Title: METHOD AND APPARATUS FOR
ASSOCIATING A FIELD
REPLACEABLE UNIT WITH A
MEDICAL DIAGNOSTIC SYSTEM
AND RECORDING OPERATIONAL
DATA

Appl. No.: 09/450,264

Filing Date: 11/29/1999

Examiner: Lau, Tung S.

Art Unit: 2863

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450, on the date below.	
CHRIS ESCAVAILLE	(Printed Name)
Chris Escaville	(Signature)
5/16/03	(Date of Deposit)

TRANSMITTAL OF APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed, in triplicate, is the Appeal Brief of the Applicants for the above-identified application.

The required fees are calculated below:

<input checked="" type="checkbox"/>	Fee for filing a brief in support of an appeal:	\$320.00
<input type="checkbox"/>	Extension month:	\$0.00
<input type="checkbox"/>	Extension:	\$0.00
	FEE TOTAL:	\$320.00
<input type="checkbox"/>	Fee paid in prior appeal:	\$0.00
	TOTAL FEE:	\$320.00

☒ Please charge Deposit Account No. 07-0845 in the amount of \$320.00. A triplicate copy of this transmittal is enclosed.

☐ A check in the amount of \$0.00 is enclosed.

[X] The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 07-0845. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 07-0845.

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

Respectfully submitted,

Date

5/16/03

By



FOLEY & LARDNER
Firststar Center
777 East Wisconsin Avenue
Milwaukee, Wisconsin 53202-5367
Telephone: (414) 297-5897
Facsimile: (414) 297-4900

Jeffrey S. Gundersen
Attorney for Applicant
Registration No. 47,619

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Lounsberry et al.

Title: METHOD AND APPARATUS FOR
ASSOCIATING A FIELD
REPLACEABLE UNIT WITH A
MEDICAL DIAGNOSTIC SYSTEM
AND RECORDING OPERATIONAL
DATA

Appl. No.: 09/450,264

Filing Date: 11/29/1999

Examiner: Lau, Tung S.

Art Unit: 2863

<p>CERTIFICATE OF MAILING</p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450, on the date below.</p> <p><u>Chris Escaville</u></p> <p>(Printed Name)</p> <p><u>Chris Escaville</u></p> <p>(Signature)</p> <p><u>5/16/03</u></p> <p>(Date of Deposit)</p>
--

MAIL STOP - APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

This paper is being filed in response to the final Office Action mailed December 16, 2002. The Notice of Appeal was filed on March 17, 2003. Applicants respectfully request reconsideration of the application.

REAL PARTY IN INTEREST

This application has been assigned of record to General Electric Company of Schenectady, New York and having a place of business in Waukesha, Wisconsin.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF THE CLAIMS

This is an appeal from the Office Action mailed December 16, 2002, finally rejecting claims 1-23. Claims 1-23 are on appeal.

STATUS OF THE AMENDMENTS

Applicants have filed no amendment subsequent to the final rejection.

SUMMARY OF THE INVENTION

The present invention relates to a medical diagnostic system such as a magnetic resonance imaging system, computed tomography system, or an ultrasound imaging system. See Specification at page 9, lines 22-24. In particular, the present invention relates to a method for associating a field replaceable unit (110) with a medical diagnostic system (100) that includes querying for information on the field replaceable unit (110) to be associated with the medical diagnostic system (100) by sending a query to an electronic device (120) associated with the field replaceable unit (110), receiving information on the field replaceable unit (110), and configuring the medical diagnostic system (100) in accordance with the information. See Specification at page 5, lines 12-20; page 6, lines 26-29; page 7, lines 1-5; and FIG. 1. A corresponding apparatus includes a storage medium (123) physically coupled to the field replaceable unit (110) and a programmed digital processing circuit (125) coupled to the storage medium. See Specification at page 5, line 21 through page 6, line 12; and FIG. 1. The storage medium contains identification information for a field replaceable unit (110). See Specification at page 6, lines 13-25. The processing circuit (125) responds to requests for identification information from the medical diagnostic system (100). See Specification at page 6, lines 4-6.

ISSUE

Whether claims 1-23 are unpatentable under 35 U.S.C. § 103(a) over Clark et al., U.S. Patent No. 4,881,230, in view of Berglund et al., U.S. Patent No. 6,427,176.

GROUPING OF THE CLAIMS

The grouping of the claims is as follows:

Claims 1-10 are grouped together as being directed to a method for associating a field replaceable unit with a medical diagnostic system.

Claims 11-15 are grouped together as being directed to an apparatus which provides for the association of a field replaceable unit to a medical diagnostic system and the recording of field replaceable unit operational data.

Claims 16-22 are grouped together as being directed to a system for associating a field replaceable unit with a medical diagnostic system.

Claim 23 is directed to a method for configuring a field replaceable unit for a medical diagnostic system.

To the extent that the claims in these groups are argued separately below, the claims do not stand or fall together.

ARGUMENT

I. LEGAL STANDARDS

The rejection of the claims at issue in this appeal are made under 35 U.S.C. § 103(a), which states:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35 U.S.C. § 103(a).

The legal standards under 35 U.S.C. § 103(a) are well-settled. Obviousness under 35 U.S.C. § 103(a) involves four factual inquiries: 1) the scope and content of the prior art; 2) the differences between the claims and the prior art; 3) the level of ordinary skill in the pertinent art; and 4) secondary considerations, if any, of nonobviousness. Litton Systems, Inc. v. Honeywell, Inc., 87 F.3d 1559, 1567, 39 U.S.P.Q.2d 1321, 1325 (Fed. Cir. 1996); see also Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459 (1966).

In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art. In re Piasecki, 745 F.2d 1468, 1471-72, 223 U.S.P.Q. 785, 787-88 (Fed. Cir. 1984).

“[The Examiner] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” In re Fritch, 972 F.2d 1260, 1265, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992).

II. REJECTION OF CLAIMS 1-23

In the Office Action mailed December 16, 2002, the Examiner rejected claims 1-23 under 35 U.S.C. § 103(a) as unpatentable over Clark et al., U.S. Patent No. 4,881,230, in view of Berglund et al., U.S. Patent No. 6,427,176 stating:

Clark discloses a method for associating a field replaceable medical diagnostic system for information on a field replaceable unit, receiving information and configuring the system in accordance with information, memory circuit attached, data for configuring the system (col. 80, lines 45-64, col. 1 lines 65-13), using network configuration (fig. 25, col. 13, lines 25-60), identification of each replaceable unit (fig. 1b-11), verification of subsystems, communication data of a replaceable unit (col. 26, lines 1-14, fig. 3-10), a storage medium, a program digital process circuit communication via network, mean for configuring the information (fig. 1b-78).

Clark does not disclose the querying information or to gather information, Berglund disclose the querying information or to gather information to correlate a physical location with a device or subsystem at that location, this correlation is needed in order to able to readily service or upgrade the system. (col. 2, lines 16-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Clark to have the querying information taught by Berglund in order to able to readily service or upgrade the system.

Final Office Action, pages 2-3.

III. THE EXAMINER'S REJECTION OF CLAIMS 1-23 IS IMPROPER BECAUSE THE CITED PRIOR ART NEITHER TEACHES NOR SUGGESTS EACH OF THE ELEMENTS OF THE CLAIMED INVENTION

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Each of the independent claims in the present application includes an element relating to a medical diagnostic system. Independent Claims 1, 7, 11, 16, and 23 each recite "a medical diagnostic system." Referring to the present specification, examples of medical diagnostic systems include vascular imaging systems, radiography and fluoroscopy systems, mammography systems, magnetic resonance imaging systems, computed tomography (CT) systems, and an ultrasound imaging systems. See Specification at page 1, lines 11-13; page 9, lines 22-24.

Neither Clark et al. nor Berglund et al. discloses, teaches, or suggests configuring a medical diagnostic system in accordance with information on a field replaceable unit. In contrast, Clark et al. relates to error management in a multiplex communication system and Berglund et al. relates to a method of maintaining system labeling in an electrical system. While Clark et al. mentions the "use of expert systems to diagnose patients in a medical environment," column 1, lines 65-66, the statement is in a "Description of the Prior Art" section as an example of a prior art software system. The "expert system" referred to in the Clark et al. reference is a software program intended for application to a "multiplex communication system" and is not related to or applied to a medical diagnostic system as recited in the independent claims of the present application.

Even in the medical context, the "expert system" referred to in Clark et al. is a software program, not a medical diagnostic system as used in the context of the present application. Referring to an encyclopedia, the term "expert systems" is defined as "a computer system or program that uses artificial intelligence techniques to solve problems that ordinarily require a knowledgeable human." See "Expert System," The

Columbia Encyclopedia, 6th ed. New York, Copyright 2003 Columbia University Press, Published January 2003 by Bartleby.com.

Discussing such "expert systems," Clark et al. states that "[a] more in depth discussion may be had by referring to the book edited by M. J. Coombs entitled Developments in Expert Systems." Col. 2, lines 11-12. Referring to the book, "expert systems" are "automated knowledge-based problem solvers." Developments in Expert Systems vii (M.J. Coombs ed. 1984). In particular, referring to the Hasling article cited by Clark et al. at column 2, lines 8-12, "This article examines the problem of automatic explanation of reasoning, especially as it relates to expert systems. . . . We then focus on the explanation system for NEOMYCIN, a medical consultation program. A consultation program interactively helps a user to solve a problem." Diane Warner Hasling et al., Strategic explanations for a diagnostic consultation system, in Developments in Expert Systems 117. Accordingly, the reference to the use of "expert systems" in the medical environment and the use of such a computer program to aid in the diagnosis of a patient via artificial intelligence is completely unrelated to the use of a medical diagnostic system as used in the context of the present application.

In response to the argument that the cited references do not disclose a "medical diagnostic system," the Examiner responded:

Applicant argue that Clark does not disclose the configuring the medical device system with the information on a field replaceable unit. Clark talk about the system works in a medical system (col. 1-2, lines 65-11), and diagnostic the system by identifying the parts within the system (col. 2, lines 47-56) in order to isolate and replace function failure parts. Clark discloses that is very common to use diagnosis systems in the medical field (col. 1-2, lines 65-11).

Final Office Action, page 3.

Regardless of whether the Clark et al. system "works in a medical system" and identifies failing parts in a "multiplexing system," the reference does not disclose or suggest a "medical diagnostic system" as defined in the present specification and used in claims 1-23. The "expert systems" referred to by the Clark et al. reference are artificial intelligence software programs, and are not medical diagnostic systems such

as CT systems, ultrasound imaging systems, or MRI systems. The two concepts are completely unrelated.

Accordingly, independent claims 1, 7, 11, 16, and 23 and corresponding dependent claims 2-6, 8-10, 12-15, and 17-22 are patentable over the combination of Clark et al. and Berglund et al. and are presented for reconsideration and allowance.

IV. THE EXAMINER'S REJECTION OF CLAIMS 1-23 IS IMPROPER BECAUSE IT IS BASED UPON UNRELATED ART

"In order to rely on a reference as a basis for rejection of the applicant's invention, the reference must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." In re Oetiker, 977 F.2d 1443, 1447, 24 U.S.P.Q.2d 1443, 1445 (Fed. Cir. 1992).

In rejecting Claims 1-23, the Examiner relies upon two references that are unrelated to the problem with which the present invention is intended to solve. Each of the independent claims of Applicants' application relates to improvements made to a medical diagnostic system. Clark et al. relates to the use of a software program to "identify failing units of a communications multiplexer." Col. 2, lines 35-36. Reciting from the introduction of Clark et al., "[t]he following disclosure describes a method and hardware environment for using an expert system to provide error analysis and rectification in a communications multiplexing system that provides higher availability and increased data throughput." Col. 10, lines 38-42. Berglund et al. relates to "the field of system maintenance and in particular, to physical labeling of a system after a field service/upgrade." Col. 1, lines 22-23. Neither reference relates to the problem of improving a medical diagnostic system.

Nor is either cited reference reasonably pertinent to the field of Applicants' endeavor. Applicants are not utilizing the artificial intelligence of an "expert system" as taught by Clark et al. The Clark et al. system is not intended for use in a medical diagnostic system in the context of the present application. In fact, after describing various "expert systems," Clark et al. states that "[w]hile these patents describe

various expert systems, they lack the capability of employing expert system techniques to identify failing units of a communications multiplexer" Col.2, lines 32-36. Accordingly, the Clark et al. reference is directed to the use of an artificial intelligence software program to "identify failing units of a communications multiplexer," a concept that is not reasonably pertinent to the claimed invention. Further, Applicants' invention does not relate to affixing labels to portions of a system after a system upgrade as taught by Berglund et al.

Because neither Clark et al. nor Berglund et al. meets either of the elements of the test for analogous art set forth in Oetiker, the references are not a proper basis for the rejection of claims 1-23.

V. THE EXAMINER'S REJECTION OF CLAIMS 1-23 IS IMPROPER BECAUSE A PERSON HAVING ORDINARY SKILL IN THE ART WOULD NOT HAVE HAD A REASONABLE EXPECTATION OF SUCCESS IN ATTEMPTING TO CREATE THE CLAIMED INVENTION

"The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art." In re Dow Chem. Co., 837 F.2d 469, 473, 5, U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988).

Even if Clark et al. and Berglund et al. included all the elements of the claimed invention, a person having ordinary skill in the art would not have had a reasonable expectation of success were the claimed combination of elements to be attempted.

Clark et al. relates to the use of an artificial intelligence software program to "identify failing units of a communications multiplexer." Col. 2, lines 32-36. Berglund et al. relates to "the field of system maintenance and in particular, to physical labeling of a system after a field service/upgrade." Col. 1, lines 22-23. A person having ordinary skill in the art would not have a reasonable expectation of creating the claimed invention when combining the systems of Clark et al. and Berglund et al. because the combination of a software program and a labeling system would not reasonably lead to

the creation of an apparatus or method of associating a field replaceable unit with a medical diagnostic system. The combination of the Clark et al. and Berglund et al. references would merely result in a computer system that is both able to process errors in a multiplex communications system as well as assign new slot labels to memory chips in a control network.

Because there would not have been a reasonable likelihood of success in creating the claimed invention were the two prior art systems combined, Claims 1-23 are patentable over the cited art.

VI. DEPENDENT CLAIM 5 IS FURTHER PATENTABLE OVER THE CITED ART IN ADDITION TO THE REASONS SET FORTH ABOVE

Dependent claim 5 recites "receiving association information from a remote service facility, the association information providing data for the step of configuring the medical diagnostic system." Regarding claim 5, the Examiner states:

Clark talk about the system works on a remote service facility (col. 42, lines 40-50) and use networking approach (TDM to be specific, col. 12, lines 25-61).

Final Office Action, pages 3-4.

Referring to the language cited by the Examiner, column 42, lines 40-50 of Clark et al. discusses "Error Analysis For Remote Nodes," stating "[e]rror analysis has the capability to run tests on remote nodes." Further, column 12, lines 25-61 appear to describe the components of a computer network. Neither portion of Clark et al. appears to disclose "receiving association information from a remote service facility, the association information providing data for the step of configuring the medical diagnostic system" Accordingly, dependent claim 5 is further patentable over the cited art.

VII. DEPENDENT CLAIM 6 IS FURTHER PATENTABLE OVER THE CITED ART IN ADDITION TO THE REASONS SET FORTH ABOVE

Dependent claim 6 recites "communicating operational data of the field replaceable unit to the remote service facility." Regarding claim 6, the Examiner states:

Clark talk about how the system communicate and identify the failing field replaceable unit, isolate the part and perform additional diagnostic to ensure the system has no error from the components (col. 2, lines 57-56).

Final Office Action, page 4.

Referring to the cited language in column 2 of Clark et al., one of the features of the computer system involves "intermittently testing the various functional units of a multiplex communications system to identify any failing units." Clark et al. does not suggest communicating operational data of a field replaceable unit to a remote service facility. In fact, Applicants can find no reference to "operational data" or a "remote service facility" in the cited portion of Clark et al. Accordingly, dependent claim 6 is further patentable over the cited art.

VIII. INDEPENDENT CLAIM 7 AND DEPENDENT CLAIM 8 ARE FURTHER PATENTABLE OVER THE CITED ART IN ADDITION TO THE REASONS SET FORTH ABOVE

Claim 7 recites "generating a subscription file based upon the association information, the subscription file including data uniquely identifying a field service unit and a service subscription for the medical diagnostic system and storing the subscription file in machine readable form." Claim 8 recites "generating a service request subject to a service subscription and verifying a subscription file status based upon the service request." Regarding claims 7 and 8, the Examiner states:

Fig. 16 Clark shows the test file associate with a particular test, Fig. 55 show how errors store in a file and has a suggested action to replace a fail unit.

Final Office Action, page 4.

Referring to the cited portions of Clark et al., "FIG. 16 is a table describing the tests that are supported by the Advanced Diagnostics Card," col. 3, lines 48-49, and "FIG. 55 is an example of an error analysis report," col. 5, line 23. Neither figure shows a subscription file having "data uniquely identifying a field service unit and a service subscription for the medical diagnostic system" or "generating a service request

subject to a service subscription and verifying a subscription file status based upon the service request." Accordingly, independent claim 7 and dependent claim 8 are further patentable over the cited art.

IX. DEPENDENT CLAIMS 10, 15, AND 22 ARE FURTHER PATENTABLE OVER THE CITED ART IN ADDITION TO THE REASONS SET FORTH ABOVE

Dependent claims 10, 15, and 22 recite "an x-ray tube, the x-ray tube being the field replaceable unit." Regarding this claim limitation, the Examiner states:

It would have been inherent to one of ordinary skill in the art at the time the invention was made to know that medical system include x-ray machine.

Final Office Action, page 4 (emphasis added).

As an initial matter, to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). The x-ray tube of claims 10, 15, and 22 is neither taught nor suggested by either Clark et al., or Berglund et al. In fact, an x-ray tube is not disclosed at all by either reference. Accordingly, a prima facie case of obviousness may not be made utilizing the two cited references.

Additionally, the accepted law of inherency is that an inherent characteristic may be shown to be inherent in a reference if "the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991) (emphasis added). The concept of inherency is relevant in both the anticipation and obviousness contexts when an element is not expressed in the prior art. See In re Napier, 55 F.3d 610, 613, 34 U.S.P.Q.2d 1782, 1784 (Fed. Cir. 1995). Regarding the definition of necessarily present, "[i]nherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." Continental Can, 948 F.2d at 1269, 20 U.S.P.Q.2d at 1749.

An x-ray tube is not "necessarily present" in either the software program of Clark et al., or the electrical system of Berglund et al. Nor does either reference disclose a "medical system" as asserted by the Examiner, and even if a "medical system" were disclosed, an x-ray tube is not "necessarily present" in a medical system, even if an x-ray tube may be part of a particular medical system. Accordingly, dependent claims 10, 15, and 22 are further patentable over the cited art.

X. INDEPENDENT CLAIM 11 IS FURTHER PATENTABLE OVER THE CITED ART IN ADDITION TO THE REASONS SET FORTH ABOVE

Independent claim 11 recites a "processing circuit being responsive to requests for identification information from the medical diagnostic system." Regarding claim 11, the Examiner states:

Clark disclose in Fig. 1D a processor (processor 900) circuit that handle the tasks of the system.

Final Office Action, page 4.

FIG. 1D does disclose a "9000 PROCESSOR," which is described in the specification at column 15, lines 20-44. However, nowhere in Clark et al. is the 9000 processor described as "being responsive to requests for identification information from [a] medical diagnostic system." Berglund et al. makes no mention of any medical diagnostic system. Accordingly, claim 11 and corresponding dependent claims 12-15 are patentable over Clark et al. in view of Berglund et al. and are presented for reconsideration and allowance.

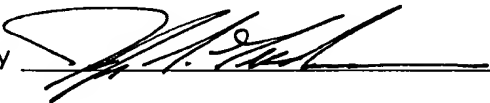
CONCLUSION

In view of the foregoing, the Applicants submit that claims 1-23 are not properly rejected as being unpatentable under 35 U.S.C. § 103(a). Accordingly, Applicants respectfully request that the Board reverse the claim rejections and order that a Notice of Allowance respecting all pending claims be issued.

Respectfully submitted,

Date 5/16/03

FOLEY & LARDNER
777 East Wisconsin Avenue
Milwaukee, Wisconsin 53202-5367
Telephone: (414) 297-5897
Facsimile: (414) 297-4900

By 

Jeffrey S. Gundersen
Attorney for Applicant
Registration No. 47,619

APPENDIX - THE CLAIMS ON APPEAL

1. A method for associating a field replaceable unit with a medical diagnostic system, the method comprising:
 - querying for information on a field replaceable unit to be associated with a medical diagnostic system by sending a query to an electronic device associated with the field replaceable unit;
 - receiving information on the field replaceable unit from the electronic device; and
 - configuring the medical diagnostic system in accordance with the information.
2. The method of claim 1, wherein the step of querying for information comprises sending a query to a memory circuit attached to the field replaceable unit.
3. The method of claim 1, wherein the step of receiving information comprises receiving identification information from the electronic device.
4. The method of claim 1, wherein the step of receiving information further comprises receiving association information from the electronic device, the association information providing data for the step of configuring the medical diagnostic system.
5. The method of claim 3, wherein the step of receiving information further comprises receiving association information from a remote service facility, the association information providing data for the step of configuring the medical diagnostic system.
6. The method of claim 5, further comprising the step of communicating operational data of the field replaceable unit to the remote service facility.
7. A method for associating a field replaceable unit with a medical diagnostic system, the method comprising:

querying for information on a field replaceable unit to be associated with a medical diagnostic system by sending a query to an electronic device associated with the field replaceable unit;

receiving identification information on the field replaceable unit from the electronic device;

receiving association information from a remote service facility;

generating a subscription file based upon the association information, the subscription file including data uniquely identifying a field service unit and a service subscription for the medical diagnostic system and storing the subscription file in a machine readable form; and

configuring the medical diagnostic system in accordance with the association information and identification information.

8. The method of claim 7, further comprising generating a service request subject to a service subscription and verifying a subscription file status based upon the service request.

9. The method of claim 1, further comprising the step of communicating operational data related to the field replaceable unit to the electronic device.

10. The method of claim 1, wherein the step of configuring the medical diagnostic system is in accordance with characteristic information regarding operation of an x-ray tube, the x-ray tube being the field replaceable unit.

11. An apparatus which provides for the association of a field replaceable unit to a medical diagnostic system and the recording of field replaceable unit operational data, the apparatus comprising:

a storage medium physically coupled to the field replaceable unit, the storage medium containing identification information for a field replaceable unit; and

a programmed digital processing circuit coupled to the storage medium, the processing circuit being responsive to requests for identification information from the medical diagnostic system.

12. The apparatus of claim 11, further comprising a communication interface coupled to the medical diagnostic system, the communication interface being configured to allow communications between the medical diagnostic system and a remote facility via a network.

13. The apparatus of claim 11, wherein the storage medium provides a memory location for a record of operational data for the field replaceable unit.

14. The apparatus of claim 11, wherein the storage medium contains characterization information related to the configuration of the medical diagnostic system for the operation of the field replaceable unit.

15. The apparatus of claim 11, wherein the storage medium is physically coupled to an x-ray tube, the x-ray tube being the field replaceable unit.

16. A system for associating a field replaceable unit with a medical diagnostic system, the system comprising:

means for electronically querying for information on a field replaceable unit to be associated with a medical diagnostic system;

means for electronically receiving information on the field replaceable unit; and

means for configuring the medical diagnostic system in accordance with the information.

17. The system of claim 16, further comprising means attached to the field replaceable unit for storing association information regarding the field replaceable unit.

18. The system of claim 16, further comprising means for recording operational information associated with the operation of the field service unit in the medical diagnostic system.

19. The system of claim 16, further comprising means for interfacing with a remote facility via a communication network.

20. The system of claim 19, further comprising means for reconfiguring the medical diagnostic system in accordance with association information from the remote facility.

21. The system of claim 19, further comprising means for servicing the field service unit via the communication network.

22. The system of claim 16, wherein the means for configuring the medical diagnostic system is in accordance with characteristic information regarding operation of an x-ray tube, the x-ray tube being the field replaceable unit.

23. A method for configuring a field replaceable unit for a medical diagnostic system, the method comprising:

- providing a medical diagnostic system having a field replaceable unit;
- providing an electronic device associated with the field replaceable unit;
- providing a storage medium on the electronic device, the storage medium containing identification information and characterization information related to the configuration of the medical diagnostic system for the operation of the field replaceable unit;

- querying for information on the field replaceable unit by sending a query to the electronic device associated with the field replaceable unit;

- receiving identification information and characterization information on the field replaceable unit from the electronic device; and

- configuring the medical diagnostic system in accordance with the identification information and characterization information.



RECEIVED

JUL 21 2004

TECH CENTER 2800

Title: METHOD AND APPARATUS FOR ASSOCIATING A FIELD
REPLACEABLE UNIT WITH A MEDICAL DIAGNOSTIC SYSTEM
AND RECORDING OPERATIONAL DATA

Inventor(s): Lounsberry et al. Dkt. No. 070191-0190 (15-XT-519;
Appl. No.: 09/450,264 JSGU (5/16/03)

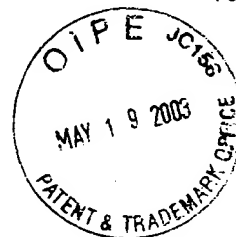
- Transmittal of Appeal Brief (2 pgs.);
- Brief on Appeal (17 pgs.).

Triplicate

Commissioner for Patents:

Please acknowledge receipt of the above-identified
documents by applying the U. S. Patent and Trademark Office
receipt stamp hereto and mailing this card.

Respectfully,
Foley & Lardner



p 5/21/03